

Appln. No.: 09/539,815
Amendment Dated March 28, 2005
Reply to Office Action of December 28, 2004

MATP-587US

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A method for storing video and audio data which have been compressed according to a standard specified by the Moving Pictures Experts Group (MPEG), the method comprising the steps of:

formatting the video and audio data into respective program elementary stream (PES) packets;

recording the video and audio PES packets on a disk wherein the video PES packets are recorded separately from the audio PES packets ;

retrieving the video and audio PES packets from the disk;

storing the retrieved audio and video PES packets into respective video and audio buffers, wherein ~~the audio and video PES packets stored in the respective audio and video buffers represent respectively different amounts of time, the audio PES packets stored in the~~ audio buffer represent a sufficient amount of audio data to be decoded during an interval in which no audio data is being stored into the audio buffer due to a first number of retries caused by at least one soft error on the disk and the video PES packets stored in the video buffer represent a sufficient amount of video data to be decoded during an interval in which no video data is being stored into the video buffer due to a second number of retries caused at least one soft error on the disk; wherein the first number of retries is greater than the second number of retries; and

providing the decoded audio and video PES packets from the respective audio and video buffers to an MPEG decoder.

2. Canceled.

3. (Original) A method according to claim 2, wherein the MPEG decoder includes an internal clock signal and the method further includes the step of synchronizing the internal clock signal to the audio PES packets provided from the audio buffer.

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4. (Original) A method according to claim 2, further including the steps of:

monitoring the disk for soft errors;

when a soft error occurs, causing the MPEG decoder to repeatedly display a current frame; and

after the occurrence of the soft error, performing the steps of:

determining if the audio and video PES packets being provided to the MPEG decoder are synchronized in time;

if the packets are not synchronized, monitoring the data stored into the buffer for encoded images that are not used to decode any other image and discarding video PES packets corresponding to the encoded images that are not used to decode any other image until the audio and video PES packets are synchronized in time.

5. (Currently Amended) Apparatus, for use with an MPEG decoder, for storing video and audio data which has been compressed according to a standard specified by the Moving Pictures Experts Group (MPEG), the ~~method~~ apparatus comprising:

a transport decoder that receives a bit-stream including the compressed audio and video data formatted as transport packets and that reformats the compressed audio and video data into respective program elementary stream (PES) packets;

a disk drive onto which the audio and video PES packets are separately recorded;

an audio buffer memory for retrieving and storing the audio PES packets from the disk, wherein the audio PES packets stored in the audio buffer memory represent a sufficient amount of audio information to provide the MPEG decoder with audio data during an interval in which no audio data is being stored into the audio buffer due to a second number of retries caused by at least one soft error on the disk; and

a video buffer memory for retrieving and storing the video PES packets from the disk, ~~wherein the audio and video PES packets stored in the respective audio and video buffer memories represent respectively different amounts of time~~ the video PES packets stored in the

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video buffer memory represent a sufficient amount of video information to provide the MPEG decoder with video data during an interval in which no video data is being stored into the video buffer due to a second number of retries caused by at least one soft error on the disk, wherein the second number of retries is less than the first number of retries; and

~~an MPEG decoder, coupled to receive the audio and video PES packets from the respective audio and video buffer memories.~~

6. Canceled

7. (Original) Apparatus according to claim 6, wherein the audio buffer memory has an amount of memory sufficient to hold encoded audio data representing approximately ten seconds of audio output.

8. (Original) Apparatus according to claim 6 wherein:

the disk provides a signal indicating that a soft error has occurred;

the MPEG decoder, responsive to the soft error signal from the disk, repeatedly displays a current frame; and

the apparatus further comprises:

a processor, coupled to the audio and video buffers for determining if the audio and video PES packets being provided to the MPEG decoder are synchronized in time, wherein, if the packets are not synchronized, the processor monitors the data stored into the buffer for encoded images that are not used to decode any other image and discards video PES packets corresponding to the images that are not used to decode any other image until the audio and video PES packets are synchronized in time.

9. (Original) Apparatus according to claim 6 wherein:

the video buffer includes a sufficient amount of memory to provide data to the MPEG decoder with video data for the amount of time in which no data is stored into the buffer due to the soft error on the disk; and

the apparatus further comprises:

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a processor, coupled to the audio and video buffers for determining if the audio and video PES packets being provided to the MPEG decoder are synchronized in time, wherein, if the packets are not synchronized, the processor monitors the data stored into the buffer for encoded images that are not used to decode any other image and discards video PES packets corresponding to the encoded images that are not used to decode any other image until the audio and video PES packets are synchronized in time.

10. (Original) Apparatus according to claim 9, wherein the video buffer includes a sufficient amount of memory to hold encoded data representing three frames of video information.